



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,662	09/19/2001	Edward G. Tiedemann JR.	PA792C1	1407
23696	7590	10/26/2006	EXAMINER	
QUALCOMM INCORPORATED			NGUYEN, STEVEN H D	
5775 MOREHOUSE DR.				
SAN DIEGO, CA 92121			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 10/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/955,662

Applicant(s)

TIEDEMANN ET AL.

Examiner

Steven HD Nguyen

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-9 and 16-17 is/are allowed.
- 6) ☒ Claim(s) 1-3 and 10-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/15/06 has been entered.

### ***Claim Objections***

2. Claim 1 objected to because of the following informalities:

As claims 1, 2, lines 5 and 10, "the frame" should be changed to -- the time frame --.

As claims 4, 13, lines 5 and 11, "the frame" or "one frame" should be changed to -- the time frame --.

As claims 4, line 12, "one frame" should be changed to -- the time frame --.

As claim 3, line 3, "the steps of claim 1" should be changed to -- the steps of claim 2 --.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2616

4. Claims 1-2 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As claim 1, line 13, "the frame" is vague and indefinite because it's unclear if it is refer to a recitation "a frame" of line 11 or a recitation "a time frame" of line 4 or "the frame" of lines 5 and 10.

As claim 2, line 16, "the frame" is vague and indefinite because it's unclear if it is refer to a recitation "a frame" of lines 11-12 or a recitation "a time frame" of line 4 or "the frame" of lines 5 and 10.

Please clarify, so the meter and boundary of the claim can be determined.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

Art Unit: 2616

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-3 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato (USP 6707806) in view of Voois (USP 6404776).

Regarding claims 1-3 and 15, Kato discloses a method and system such CDMA for transmitting unscheduled and scheduled streams by using a transmission power not greater than maximum power (controlling a transmission power of the data types within a time frame that carries a plurality of data types such as first data type reads on scheduled stream and second data type reads on unscheduled stream in order to prevent the total of transmission power of the data types less than a transmission power of the frame, See col. 1, lines 50-67) between the base station (Fig 1, Ref 10-3 and mobiles Fig 1, Ref 11-1 and 11-2) and the sum is substantially equal to the maximum power ceiling and the sum is maintained at a constant level over a plurality of time frames by repeating the steps of claim 2 (It is implicitly disclosed because the base station transmits the same information, then the sum is at constant level and substantially equal to the transmission power of the frame). However, Kato fails to disclose the steps of identifying at least one portion of a time frame within the forward link, the identified portion of the frame having available capacity for transmitting at least a portion of at least one previously unscheduled traffic stream in addition to any traffic streams previously scheduled to be transmitted over the forward link; and simultaneously transmitting the previously scheduled traffic streams and the portion of the previously unscheduled traffic stream during the identified portion of the frame. In the same field of endeavor, Voois discloses the steps of identifying at least one portion of a time frame within the forward link (Fig 7A, Ref 400, Col. 5, lines 24-28),

Art Unit: 2616

the identified portion of the frame having available capacity for transmitting at least a portion of at least one previously unscheduled traffic stream in addition to any traffic streams previously scheduled (to be transmitted over the forward link (Fig 7, Ref 404 and 416, col. 6, line 57 to col. 7, line 15, col. 8, lines 47-62, unscheduled and scheduled stream read on high and low priority streams); and simultaneously transmitting the previously scheduled traffic streams and the portion of the previously unscheduled traffic stream during the identified portion of the frame (Col. 8, lines 47 to col. 19, the streams is multiplexing into a single frame for transmitting to destination) and determining if a frame is error and retransmitting the frame (Col. 13, line 40 to col. 14, lines 12 and col. 16, lines 25-52).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for determining available bandwidth of a frame in order to maximize the amount of high priority data in a frame and retransmitting a frame if determining that the received frame has error as disclosed by Voois' system into Kato's system and method. The motivation would have been to improve throughput of the system.

Regarding claim 10, Voois implicitly discloses a traffic stream from the previously unscheduled streams has a different frame length than a traffic stream from the previously scheduled streams (Col. 9, lines 2-18).

Regarding claim 11, Voois discloses the traffic stream is transmitted discontinuously (Col. 9, lines 2-18).

Regarding claim 12, Voois discloses the previously unscheduled traffic stream has a lower priority than the previously scheduled traffic streams (Col. 9, lines 2-18).

Regarding claims 13-14, Kato discloses a method and system such CDMA for transmitting unscheduled and scheduled streams by using a transmission power not greater than maximum power (controlling a transmission power of the data types within a time frame that carries a plurality of data types such as first data type reads on scheduled stream and second data type reads on unscheduled stream in order to prevent the total of transmission power of the data types less than a transmission power of the frame, See col. 1, lines 50-67) between the base station (Fig 1, Ref 10-3 and mobiles Fig 1, Ref 11-1 and 11-2). However, Kato fails to disclose the steps of identifying at least one portion of a time frame within the forward link, the identified portion of the frame having available capacity for transmitting at least a portion of at least one previously unscheduled traffic stream in addition to any traffic streams previously scheduled to be transmitted over the forward link; and simultaneously transmitting the previously scheduled traffic streams and the portion of the previously unscheduled traffic stream during the identified portion of the frame. In the same field of endeavor, Voois discloses the steps of identifying at least one portion of a time frame within the forward link (Fig 7A, Ref 400, Col. 5, lines 24-28), the identified portion of the frame having available capacity for transmitting at least a portion of at least one previously unscheduled traffic stream in addition to any traffic streams previously scheduled (to be transmitted over the forward link (Fig 7, Ref 404 and 416, col. 6, line 57 to col. 7, line 15, col. 8, lines 47-62, unscheduled and scheduled stream read on high and low priority streams); and simultaneously transmitting the previously scheduled traffic streams and the portion of the previously unscheduled traffic stream during the identified portion of the frame (Col. 8, lines 47 to col. 19, the streams is multiplexing into a single frame for transmitting to destination) and frames of unscheduled or scheduled are offset in time with respect each other

Art Unit: 2616

and frames in scheduled and unscheduled stream have different length (Col. 9, lines 2-19, audio and control packet and video packet are offset in time with respect each other which have different length).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for determining available bandwidth of a frame in order to maximize the amount of high priority data in a frame as disclosed by Voois' system into Kato's system and method. The motivation would have been to improve throughput of the system.

***Allowable Subject Matter***

8. Claims 4-9 and 16-17 are allowed.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (571) 272-3159. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'S. Nguyen', is positioned above the printed name.

Steven HD Nguyen  
Primary Examiner  
Art Unit 2616  
October 21, 2006